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The present state of library manpower and the outlook for the future is assessed in terms of manpower analysis. The field of library service is appraised within the larger framework of such comparable fields as teaching, social work, and nursing which also make use of large numbers of female workers. Important findings and conclusions are: (1) the field of librarianship has responded to expanded demands by rapidly increasing the number of professional and para-professional workers, (2) the state of preparation for the field is confused, (3) many graduate programs, particularly doctoral, are weak, (4) it is undesirable to establish a single set of national standards for manpower qualifications, (5) there is a need for more librarians to become acquainted with the new technology for storage and retrieval, and (6) above all, the library field needs to know more about its own human resources--how they are recruited, trained, and utilized. (Author/JB)

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Columbia University
September, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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1. Introduction

Everybody concerned with the staffing and operations of libraries as well as many of their users would agree on one point--libraries have a manpower problem. But this would be the extent of their agreement. A little probing to elicit the nature of the problem would bring forth a great variety of responses and the area of disagreement, even among specialists within the same general subdivision of the field, would exceed the area in which there is consensus.

To illustrate: there are librarians in charge of public libraries who believe that there is a shortage of professionally trained librarians; others would deny this as a problem and would insist that they most need a larger number of assistants; still others would identify the most critical shortage as that of qualified typists. A few directors of large library systems would argue that existing manpower shortages could be alleviated without additional personnel if they were able to institute new relations among the units in the system and reassign the existing personnel in accordance with a more rationalized pattern.

We must be quick to add that such differences of opinion are not limited to public libraries. There are the same disagreements among the leadership when it comes to school libraries. Here too we can quickly identify those who bemoan the shortage of professionally trained librarians;

those who argue for an increase in the number of assistants and supporting personnel; and those who maintain that if a higher degree of centralization could be achieved the available staff could meet the demands on the system.

The same range of opinion can be found among those who are responsible for the management of large research and special libraries. Here too there are protagonists for each position. Some contend that only a substantial increase in professional librarians will enable these institutions to discharge their responsibilities effectively; others emphasize the need for more technicians and supporting staff; still others believe that effective solutions lie along the path of reorganization with a higher degree of coordination among research libraries.

If we shift our focus to the educational structure, we again discover agreement that education and training for library service should be improved, but that is as far as agreement goes. Some see great virtue in the rapid expansion of library courses in junior colleges; others strongly support the provision of a library major within the undergraduate curriculum at both liberal arts colleges and teachers colleges; others stress the importance of the expansion of programs at the master's level; and still others put primary emphasis on the expansion of institutions providing

instruction at the level of doctorate.

This brief categorizing does not exhaust the dominant points of view. Some believe that the profession has gone too far during the past several decades in minimizing in-service training courses while others propound the benefits of the newly proliferating extramural courses. Some strong proponents, especially among those concerned with the future of research libraries, believe that the answer lies not so much with changes in the education of librarians as with recruiting into the profession men and women trained in various disciplines in graduate and professional schools who are then encouraged to become competent in a specialized aspect of librarianship.

To consider one other dimension of the field--that related to technological changes. All who are informed believe that the computer revolution and the related technological changes now under way will have a pronounced effect on librarian manpower. But once again that is the extent of the agreement. Some believe that individuals previously recruited into the field will soon be unable to cope with the new technology because of their education and training. Others, while not denying current changes, question that more than a small segment of the profession will be affected by the new technology for a long time to come. In fact, they are so

convinced that library science tomorrow will be substantially like yesterday that they are willing to yield the experimentation and development of the new technology to specialists in information science. Others fall in between. They believe that the field of library science will not escape substantial modification as the new technology advances, but they believe that the advances will come at a rate that can be absorbed by the existing and future librarian manpower without undue difficulty.

It may be helpful to set out very briefly what lies back of the fact that such widely differing opinions are characteristic of the leadership of the library profession. The first point is the marked differences that characterize the objectives and the operations of school libraries, public libraries, college libraries, and research libraries. It is inevitable that men see the world in terms of the problems which they confront and the solutions toward which they aim.

Secondly, we are a nation of continental proportions, which means that even within the same subdivision of a field there are marked differences with regard to both the services demanded and the personnel available to render them. A public library in a Brooklyn ghetto has little in common with one located in Scarsdale, or in Dekalb County, Georgia, or in a rural county in Montana. Small wonder that different

administrators reach different conclusions about the nature of manpower problems and about their solutions.

The fact that the field of library science has been subjected to relatively little systematic research; and that basic data about the services rendered and the personnel used to render them are conspicuously lacking both in quantity and quality means that a great variety of opinions can be put forward and become the subject for continuing discussion without any resolution of the conflicting viewpoints. Without reliable information one expert is as good as the next. No one has to yield; no one is able to win converts to his position.

Every profession presents its leadership with a dilemma. Leaders are supposed to lead. And leaders do not long remain in leadership positions unless they can carry the membership. Therefore every professional leadership tends to develop positions that are acceptable to the vast majority. Consequently, there is a tendency for the leadership to be attuned to the hopes and aspirations of those who have been in the field for some time rather than to set a course which will be attractive to those who may enter in the future.

If the membership in a profession reflects a wide range of special interests and concerns, it is difficult for the leadership to establish policy which will have broad adherence.

As a consequence, it is likely to remain anchored in yesterday's problems.

A final reason for the marked differences in the attitudes and approaches of the leadership stems from the fact that some are much better informed than others about the nature and implication of new scientific and technological developments. Generally this difference is related to age: those whose training is more recent are likely to be better informed and therefore are likely to be more responsive to the cutting edge of the new technology. On the other hand, many of the established members of the profession, whose education and training was acquired two or even three decades ago are likely to minimize the significance of new developments.

Each of these forces--the inherent differences among the different branches of the field, the differences that stem from location, those that are imbedded in opinion which cannot be evaluated because there are no reliable data, the leadership attempts to placate the special interests of a heterogeneous membership, and the lack of agreement about the new technology--helps to explain the persistence of widely differing points of view about the present and prospective manpower problems that confront librarianship. In the face of such uncertainty, disagreement, and limited knowledge, any approach

to the manpower question must be directed more to clarifying the critical elements than to providing definitive answers. The latter can be accomplished only if the former is carried through successfully. And there is a basic intervening variable--sound information which must be accumulated.

2. Basic Dimensions

While every profession believes itself to be unique--since the nature of a profession is that it is concerned with providing uniquely important services to the public--the fact is that they are all related first because they must draw their manpower from the same national pool, and second they must compete for dollars from the same national income.

While manpower and money tie library services to the other professions, each profession, by virtue of its history, present circumstances, and future prospects tends to develop certain distinctive characteristics. In the analysis of a profession's manpower problems a necessary first step is to identify the principal determinants that have helped to structure the profession and define the ways in which it operates. Accordingly, these key factors will now be delineated and their import briefly discussed.

a) Educational-Occupational Linkages

As in a great many professions, including teaching,

social work, and nursing, library science has had a loose relationship to the educational structure. The profession has not yet been able to establish a systematic relationship between the education that a person receives and the work assignments which he fulfills. While a few employers are able to hire new employees according to preferred educational criteria--i.e., a professional librarian is one who has received a master's or doctor's degree from an approved school--a great many employing institutions are unable to recruit against such preferred criteria and have to fill their vacant positions from among those who have obtained a master's degree or even a baccalaureate degree from a school that has not been accredited by the American Library Association.

In addition there are others employed in the field with a master's or a bachelor's degree but with only a few courses in librarianship. And some employers have had to hire individuals with a college degree without any specialized training in library science.

Whenever the relations between educational preparation and the occupational structure are as loose as that outlined above several conclusions can be drawn that have significance for manpower policy. First, employers are unable to meet their requirements from among the preferred pool. This may

reflect an inadequate number of approved educational institutions, or it may reflect a thinness in the numbers of applicants who are able or willing to pursue a master's degree in an approved school. Another explanation, and a very important one, is that many employers see little clear advantage to hiring only those with masters' degrees from approved schools since students with strong undergraduate training may be equally qualified. And if it is possible to hire them at a salary below that which must be offered to those with masters' degrees, the employer may actually favor those with only undergraduate training.

Many experts believe that it is exceedingly difficult to distinguish among many undergraduate and graduate programs. If significant differences do not in fact exist, the practices of employers who are not responsive to the standards the profession is seeking to establish have more basis.

When the educational requirements for professionalism cannot be defined in a manner which carries the sanction of the market place it is a largely academic exercise to calculate present or prospective shortages. It is one thing for the leaders of a profession to stipulate that only those persons who have graduated from a limited number of approved programs are to be considered professionals. But as long as the staffing patterns provide unequivocal evidence that many

others, trained differently, are filling the same type of assignments and are performing their work satisfactorily, the manpower shortages which are calculated may reflect the lack of realism of the profession rather than unfilled services to the public.

b) Library Services: Local Output

As with most services, it is necessary to provide library services locally to meet the needs of the community. This is quite different from the provision of goods, such as automobiles which can be manufactured thousands of miles from the market. This element of geographic specificity is important for manpower policy because employers must draw most of their personnel from a local supply. In turn, since many people attend school close to their home and continue to live in the same area, there are important relationships between the educational and training structure for librarians and the employment market. Since state governments cover a large part of the costs of many colleges and universities, and since there are marked differences among states in their ability and willingness to support higher education, there are marked differences in the quantity and quality of educational opportunities available in different regions. This helps to explain why it may be difficult if not impossible to establish

a single set of standards for libraries and librarians throughout the United States. Employers must make do with the manpower available to them in their immediate locality. And the number and quality of this manpower has been determined in considerable measure by the educational institutions in the area.

This emphasis on the importance of the local manpower pool does not deny that for some part of the total personnel supply a national market exists. The director of a major public library or a large university library will move from one part of the country to another in response to broadened opportunities, as will others who are one or two rungs away from the top. But a high proportion of all librarians are bound to the area where they are domiciled. And one reason for this limited mobility is that such a high proportion of all librarians are women and increasingly, they are married women.

One of the important generalizations that can be drawn from this discussion of the necessity to rely primarily on local people to provide library services is the probability that employers located in different labor markets, with differing demands for library services, will work out different manning patterns. There is no single best way to staff a library. The answer will depend on the availability of different

types of trained manpower and the ways in which they can be most effectively assigned to provide optimum services at a reasonable cost.

c) Women: The Primary Manpower Resource

There are important manpower implications beyond those outlined above that flow from the fact that such a high proportion of all library manpower is composed of women. Since one of the principal fields of library service is that of school libraries, it is highly desirable that the present pattern, whereby a high proportion of librarians are trained in undergraduate programs designed for the training of teachers, be undisturbed. This is a large stream of potential manpower that can be easily tapped. Moreover, it is desirable for school librarians to be aware of the needs of the classroom teacher.

Librarianship has long been considered a genteel occupation and as such it drew a relatively high proportion of its women from middle class homes. Many married and withdrew from the field. But many others, who did not marry, made a career of it. Each trend has important manpower implications. Any field attractive to young women will inevitably suffer from a high turnover. And while only scraps of information are available it appears that high turnover has been and continues to be a major problem.

A field with a labor force consisting of a large number of unmarried women develops a certain brittleness. As the insurance companies have reported--they too have such a labor force--a significant proportion of older unmarried women are likely to become rigid and find it difficult to accept change. Moreover, the presence in a field of many unmarried women frequently operates as a recruitment deterrent. One of the important new sources of supply for library service are married women who are entering or reentering the labor market. But, as we know from nursing in particular, the unmarried careerist is likely to object to working with married women, many of whom require or desire minor modifications in schedules.

The salary structure and the conditions of work of library service, which has attracted a disproportionate number of relatively unassertive women, reflects this fact. Librarians have been less inclined than other professional groups to put forward their demands and to press for their acceptance. A spiral has thus been established. A high proportion of the group, characterized by little aggressiveness, has permitted its salaries and working conditions to lag behind those of others with comparable education and skill, with the result that many able but more aggressive persons have refused to consider the profession.

Another consequence of the high proportion of women in library service is that, reflecting the long-standing differences in the curricula of college men and women most librarians have majored in the humanities. Only a few have studied natural sciences. As a consequence there is an imbalance between the burgeoning literature and interest of the American people especially at college and university level in the sciences and the ability of librarians to be helpful in these subject-matter areas.

Librarians, like nurses and social workers, are frequently attracted to their careers because of a desire to be of service to people and to have a relationship with others. This is one of their strengths and their sources of satisfaction. But the nature of library services, especially in larger institutions, has undergone significant changes which make it impossible for a trained librarian to meet the users of the library. There are technical and managerial tasks which more logically demand her time and attention. Today there is a gap between the values and goals which draw many young women into library work and the new organizational patterns. To resort once again to the nursing example: it may make little sense for a young woman who has acquired a baccalaureate degree in nursing to spend her time in bedside care. Yet this is what drew her initially to the field and she balks at becoming a manager of others.

d) Second Careers for Men

We have seen that women predominate in library manpower. In addition, men who become librarians usually enter the field after they have explored another. Only a very few young men, especially among those attending strong colleges and universities, select librarianship as a primary occupational choice. In one recent graduating class at an Ivy League college only one senior was heading for graduate library school!

The presumption is that librarianship would be strengthened if more men enter the field, if more make it a preferred choice. A better balance between men and women is desirable since the predominance of women in a field--as in nursing, social work, elementary school teaching--undoubtedly acts as a deterrent to the entrance of men thus reducing the recruitment potential. Moreover, if more men could be attracted and retained in the field it is probable that the salary levels and working conditions would advance more rapidly since those who determine budgets and salary levels are more inclined to recognize the need for higher earnings among men who must support wives and children as well as themselves. As we have noted many women librarians are single and the presumption is that they need an income sufficient

to cover only their own needs.

There are other reasons that would make a higher proportion of men in library service desirable. We have noted that most women librarians have majored in the humanities. Men are more likely to have a scientific or technical background especially since those who enter the field usually shift to library science after having set out on a different career course.

It is not a disparagement of women librarians to point out that increasing numbers of them are married; that many withdraw from the labor market for some period of time; and that when they return they are interested in a job rather than a career. The leadership cadre that every profession requires--individuals who will acquire broad experience, hold a large number of different jobs, pursue research--these more demanding, if rewarding, tasks are likely to be pursued more aggressively by men than women. Men are more likely than women to make a more complete commitment to their work and career.

The fact that the field is so heavily staffed by women and that salaries and working conditions have lagged behind comparable fields for a long time has acted as a further barrier to the recruitment of men. But the corrections that have been made will make it somewhat easier in the

years ahead to attract a steadily rising proportion of men. At least this seems to be the moral that can be drawn from social work and teaching.

e) Libraries as Sub-Organizations

The personnel that a field can attract and retain depends in the first instance on its ability either to sell its services to the public for a profit or to receive sufficient governmental or nonprofit funds to compete successfully with other organizations which are also seeking to build up a strong work force. If we differentiate the field of library services in terms of public libraries, school libraries, and academic libraries--we will see that in the two school settings the library is part of a larger institution and its budget and staffing are set by those responsible for the institution as a whole.

The library may or may not be considered by the administrators as critically important, but inevitably it is always engaged in competition with departments which are actually instructing students. In institutions of higher learning, where students pay tuition, many departments are earners while the library is a big spender. In periods of financial stringency, such as has characterized most schools and academic institutions over the past many years, with teachers joining professional or trade union organizations to advance

their claims for more remuneration, and with the market, especially for talented persons, operating to raise salary levels, school library staffs have been at a disadvantage in presenting their claims.

In public libraries, the situation is somewhat better but far from ideal. While the library performs a distinct and recognized function and has its own line budget, it must function within a civil service structure that sets the rules and regulations for all who work for local, state or federal government. The salaries of librarians have been adjusted only when the entire civil service scale has been raised. Moreover, government budget officers have established special entrance grades or agreed to speed promotions only for certain categories of scarce personnel. In the scramble for scarce government funds it has not been possible to convince more than an occasional legislative body that librarians should be singled out for special consideration.

The prevailing view has been that in contrast to such essentials as education, health and welfare, improved library services are a quasi-luxury and the staff must wait in line for salary increases.

The vulnerability of librarians because of the fact that they are usually an overhead operation of a larger organization is shown by the experience of special libraries in

profit-making institutions. Here the management is income and cost-conscious. Here too management, while acknowledging the need for a good library, is likely to keep a tight rein on money and staff allocations. The library represents outgo. Its contributions to the overall profitability of the firm cannot be directly assessed.

As with all service operations, it is difficult to convince a tough management of differences in quality. The problem confronting libraries primarily is not to obtain the financing and the staff which have been approved in the past but to attract the additional resources to keep at a level of satisfactory operations. The student who is told that a book has been misplaced, another who finds that one has not been ordered, a third who discovers that one has been mutilated are not likely to make effective representations to the authorities as they would if there were no seats in the classroom or no teacher available. And management responds to where the pressure is greatest.

f) Differentiation and Specialization

The prototype of the librarian is the individual who knows all about books--that is, one who knows which books to buy, how to catalogue and arrange them, how to assist people to find what they want, how to check books out and

in, and even how to repair them. There are many small libraries around the country where this prototype still obtains. But just as the one-room school with one teacher for multiple grades has made way for the elementary school with multiple tracks and the comprehensive high school with its range of specialized programs and specialized staffs, many libraries have grown to a point where their volume of circulation long ago made it impossible for one person to carry through the full range of library functions.

But there are factors other than size alone that have laid the basis for new ways of organizing and staffing libraries. Important improvements in technology have made it possible to shift many activities (i.e., circulation) from people to machines. The cataloguing services of the Library of Congress has lifted a heavy burden from a great many libraries. The centralized preparation of lists of books available is another adaptation.

People who have been trained want to continue to use their skills. After all, skill represents the key to economic security and occupational status. But a dynamic economy is constantly upsetting the relations between the skills that people have acquired and the tasks which they confront. Many fields, especially where professional status is not wholly secure, such as nursing and social work, have been wracked by the ongoing struggles between the older group that is

loath to relinquish any part of its functions and responsibilities and the pressures exerted by the market and management to have new workers, less trained, take over part of the work in order to increase total output and enhance efficiency through improved organization and more specialization.

Without a deliberate decision to increase the numbers of clerks, typists, technicians and assistants, the occupational structure in the library field, as in so many other service fields, has experienced a proliferation in types of manpower. The principal factors operating to bring this about has been the market and management--the first because of shortages of professional librarians, the second because of their desire to stretch the budget.

However, although a field may attract many new types of individuals with varying orders of ability and training, this is no guarantee that it will be able to bring about a rational and efficient pattern of manpower utilization, especially in the short-run and with opposition from those who form the establishment. It is likely that there will be confusion and turmoil, pulling and hauling, much waste motion before the old and the new are effectively integrated into a functioning whole.

Among the reasons that this process of accommodation is difficult and drawn out is the disinclination of

management to take a strong stand against the obstructional tendencies of the professional in-group. Management has been drawn from among members of the profession and they continue to identify with the group. They are disinclined to raise a divisive issue and prefer to let time help to prepare the way for acceptance of the newcomers.

Some of the opposition of the working professionals cannot be ascribed to pettiness or fears about their own position and future but are caused by a genuine lack of understanding and appreciation of the capability of the new recruits. Librarians have been trained against the probability of error--such as the misplacing and the consequent loss of books--and have developed techniques to reduce these risks. Many do not believe that a flighty girl of eighteen or a hungry student whose interests lie in the laboratory will make the effort to do the job right. Distrustful, they prefer to continue to do this, and many other routine jobs, themselves.

The supervision of people is an art and supervisory competence is likely to be demonstrated only by those who have had training in basic techniques, who have had experience, and who have some flair for it. Many librarians today who have the responsibility for supervising assistants have had to pick up whatever competence they now have. They learned little if anything about supervision in school

and they were not trained for it on the job. While some do very well, others do not.

Poor supervisors present a double handicap. On the one hand there is manpower waste accruing from the under-utilization of those currently employed. In addition, inept supervisors act as a deterrent to recruitment. Many young men and women who work as a library assistant for a time and who might initially have contemplated a career of librarianship are put off by their short experiences.

g) The Need for a Career Ladder

One of the great strengths of the American economy has been that men can advance up the job hierarchy on the basis of their performance. In the steel industry there are 18 grades from the least skilled job in the yard to the jobs which involve regulating the furnace and moving the heavy cranes. Similarly, within the managerial hierarchy, a young man might be hired as a salesman or an accountant and if he demonstrates the qualities that make for success he might become vice-president or president. In earlier days it was not uncommon for men to begin as blue collar workers and to make the transition into the managerial ranks and move all the way to the top. Although the possibility of this today is greatly reduced, a careful reading of the daily press tells us that it still occurs.

One of the important differences between corporate employment in general and employment within a profession is that the work to which professionals are assigned is geared more closely to their education and less to their demonstrated competence on the job.

It is assumed that no matter how well a practical nurse discharges the functions assigned to her, she simply does not have the scope to do the work of a professional nurse who has had a three-year period of training, since she has had a formal course of studies for only one year. And pari passu the same holds for the professional nurse who aspires to take over some of the duties of a physician. She is stopped on the same ground--she has been inadequately trained. Each level on the job hierarchy can be attained only by those who have completed the educational requirements that the controlling professional group has established.

Over time, the relations between groups adjacent on the ladder shift slightly as the higher group takes on new responsibilities and therefore is willing to release some small function. But the basic pattern--that no progression is possible except through the educational route--remains fixed.

Librarianship follows other professional patterns with their rigid distinctions and demarcations that make career

progression based on competence difficult. In librarianship, there are two major breakpoints: an undergraduate or a graduate degree in library service from an accredited school. Without one or the other, an individual's opportunity to advance is limited. Most of the jobs near the top of the ladder are closed to him.

Since a high proportion of all librarians combine work with education, it might appear that there is less danger of wasteful manpower utilization than in medicine where the pattern of work and study is less prevalent. But we must point out that in librarianship, as in nursing and social work, professional courses completed in junior college often do not count toward a college degree; and similarly professional courses in college are often not accepted towards a graduate degree. While the educational structure may not be quite this inflexible, inflexibility is an outstanding characteristic. Rigidity leads to serious manpower waste. Able people who do not have the educational prerequisites are likely to leave the field when they realize that their future is a dead end. Others who are less sure of opportunities elsewhere may remain, but they are likely to become disgruntled, lose their ambition, and become time-servers.

We have seen that a serious deterrent to both recruitment and utilization of librarian manpower is the absence of an orderly system of progression in which more emphasis is

placed on experience and performance and less on attendance at formal classroom instruction. If, in the opinion of the leadership, formal instruction remains an essential ingredient for people who hold the more demanding positions, substantial gains could accrue from a less rigid educational-training structure.

h) The Weakness of Graduate Programs

Leaders of the library profession have pointed out that in the transition from the primarily undergraduate to the graduate program for librarians, very few substantive changes were made. The same courses, not always retitled or renumbered, served as the core of the graduate program. To the extent that this persists, the preparation for professional leadership is defective.

This much appears to be clear. There are a great many students who major in the field of library science during their undergraduate years. The skills and competence which they have when they graduate are not significantly different from those of a graduate of a liberal arts college who proceeds directly into a graduate program and acquires a master's degree.

Some argue that there is even less differentiation and that little distinguishes the technical curricula among a

good junior college, senior college, or graduate school.

There are weaknesses which extend beyond the curriculum. One of theseis the large number of schools offering instruction and degrees at the graduate level that are not properly staffed. They do not have enough competent staff or other resources essential for a strong graduate program.

We have noted earlier that various aspects of administration, which will be a key responsibility of those who rise in the hierarchy, are seldom given adequate attention in curriculum construction. A disproportionate amount of time is allocated to teaching a great variety of library functions from cataloguing to reference work.

One is reminded of the confusion which long characterized schools of business where too it was difficult to differentiate between undergraduate and graduate programs, and where the majority of programs, in a desperate effort to include all the major functions of business, provided little opportunity for the theory and analysis of managerial decision-making which today is the core of the curriculum in the leading graduate schools of business.

But schools of business had the advantage of an intellectual relationship to departments of economics and recently to those of the behavioral sciences and statistics. There

were major disciplines on which they could draw and their challenge was to make the right adaptations. In a library school, the linkage to the rest of the university is less close (except for relationships between school librarianship and the department of education), although efforts are under way to build bridges elsewhere.

The difficulties that pervade programs leading to a bachelor's and master's degree are more acute in a program leading to the doctorate. Major institutions of higher learning are usually loath to appoint to posts with tenure individuals who themselves do not hold a doctorate or equivalent degree. However, because of the weak links between librarianship and the several disciplines, and because most graduate instruction in library science is concerned with technical aspects, the faculties of library schools are replete with specialists most of whom do not have doctorates. As a result the distance between the library school and the rest of the university, with a few notable exceptions, is substantial.

One hallmark of a profession is the quantity and quality of its research directed to deepening the theory within its sphere and its application. Among the conspicuous evidence of weakness in graduate instruction in the field of library science is the indifferent output of research. The typical doctorate is either a narrative history of an

institutional effort or a bibliographic compendium. While both have their value, they suggest that much research has not been done which is required before improved policies and practices can be instituted--including research on the structure and operation of the profession itself.

Graduate instruction is expensive and good graduate instruction is more expensive. A great many universities which have graduate programs leading to a master's degree and a doctorate have been unwilling to appropriate the sums for adequate staffing and the other resources required to enable an institution to fashion an instructional program of quality. Moreover until recently there were very few scholarships and fellowships for graduate work in library services so that mature men and women who had been working had to use their savings or go into debt to finance their further education. Even today, although the situation has improved, graduate schools of library science do not do as much as other departments of the university in providing financial aid for students. As a result, recruitment is correspondingly more difficult.

i) The Expanded Demand for Services

The development of a trained manpower pool in a profession depends in considerable measure on whether there is a

stable or slowly expanding demand for its services or whether there is a sudden and large shift in the level of demand. Under the latter circumstances it is almost inevitable that for some considerable period of time the profession will be under pressure to make adjustments in its educational and training structure, its recruitment, wage structures, patterns of utilization and all the other institutions and mechanisms that affect its ability to attract and hold people.

The post-World War II period has witnessed a very rapid growth in demand for many basic services, particularly education and health together with the less essential but desired services that result from a much higher level of disposal income. This period has also seen a big increase in the birth rate so that services specifically geared to meeting the needs of the young were further stimulated.
the needs of the young were further stimulated.

The pressure to find qualified persons to meet the expanded demand for library service parallels closely the trend in several other fields, particularly teaching.

We have noted that libraries depend on the allocations of governments, educational authorities and the trustees of nonprofit institutions such as colleges and universities. One of the important developments of recent years that has expanded the demand has been the Federal Government's appropriating relatively large sums for the support of library

services, both directly and through legislation for the improvement of educational opportunity.

In most legislation the Federal Government has provided that its appropriations be matched by state funds in varying ratios. The result has been a radical change in the level of dollar expenditures for libraries, particularly school libraries.

The Federal Government has also made available modest funds for strengthening the educational base and for facilitating the study of librarianship through the provision of scholarships and fellowships, but its efforts on this front have not kept pace with those directed toward stimulating the demand for library services. In fact the Federal Government's largesse has caused a great part of the manpower stringency that has characterized the profession during the past decade. In this respect, librarianship has much in common with such areas as medical and scientific research where the Government's appropriations for increased output have outpaced its appropriation for expanding the base for the education and training of the persons who alone could provide the greater output.

j) Innovation and Technological Change

An outstanding characteristic of most service industries that deal with consumersdirectly is that they must rely overwhelmingly on labor inputs and can make limited

use of capital. This means that unlike the goods-producing sectors of the economy, they cannot respond to increases in demand by substituting capital for labor which usually keeps costs from rising and also reduces the pressure on the industry to recruit, train, and retain large manpower supplies.

Now we cannot say that high labor to low capital utilization is characteristic of all service industries dealing with the consumer since telephonic communications and electric power--to mention only these two--are examples of the heavy use of capital relative to labor.

Although experts differ in their appraisal of the significance of the changes to date and, even more, about the future all agree that the development of electronics has set the stage for a major revolution in communications, including the storage and retrieval of information. The world of librarianship has already been affected and there is little doubt that more radical changes loom ahead. What we do not know however is the rate that the new technology will be introduced, the areas which it will effectively penetrate, and the restructuring of the profession that will follow.

The new technology has begun to alter the customary work of libraries; it has started to alter the relations among libraries within the same community and throughout the nation; and it is altering the demands that the users of libraries can have fulfilled.

The naive assumption of many is that radical technological changes are likely to result in the widespread displacement of labor, both trained and untrained. A more correct view is that the composition of the labor supply will undergo significant alterations to meet the demands of the new technology and that many new skills will be required as old skills are made obsolescent.

While the impact of technology on librarianship of the future will undoubtedly be substantial, other forces are also operating to shake the foundations. Among the most important is the "information explosion" that is resulting in a radically stepped-up core of knowledge to which students and scholars have access. Another aspect of the radical changes that are under way is the shift in the users of public libraries. The middle class is making less use of such collections but we have only begun to explore how the resources of public libraries can be more effectively used in the education and acculturation of low income groups.

An additional development is the outpouring of scientific papers, primarily in periodicals, speedy access to which is of ever growing importance to the vastly expanded research and development cadres. While the conventional library structure--public, school, and academic--may be moving at a deliberate pace to adjust to the new forces outlined above,

the growing number of scientific libraries under corporate, governmental and nonprofit auspices that are primarily concerned with the frontiers of a discipline--or group of disciplines--must explore new systems of organization and operation if they are not to lose control over the sea of printed matter. This explains the concern of specialists in information science with research and development in librarianship.

3. A Manpower Profile

On the basis of the foregoing delineations we are now in a position to draw a manpower profile of librarianship. We will attempt to relate librarianship to the other professions and to the labor market as a whole. Once the parameters have been established, we will be in a better position to move with more specificity to the nature of the problems and the directions where solutions should be sought.

a) Librarianship is a profession where the linkages between educational preparation, work assignments, and required competences are loose.

b) All efforts to cope more effectively with manpower or any aspect of librarianship, must be undertaken in the knowledge that the nature of library services requires that they be rendered locally and in most instances produced locally.

c) Certain characteristics of women in the labor market are different from those of men, and librarianship, which depends heavily on women, must make allowance for their unique characteristics. Among the more important are: early withdrawal from work; return to work in their thirties or forties, frequently to less than a full-time job; and reduced interest in competing for the top positions.

d) The high proportion of women in the profession acts as a deterrent to the attraction of more men. Moreover for most men who enter the field, librarianship is their second or third preference.

e) Satisfactory solutions to manpower and other problems of librarianship are restricted by the fact that most libraries are not independent organizations, able to fight for their share of the consumer's or the taxpayer's dollar. Most libraries are subsidiaries of larger organizations whose management is frequently more concerned with keeping costs low than in improving services.

f) In the past most librarians worked in relatively small libraries and were responsible for all of the operations, but the increase in the number of large libraries and of library systems has led to differentiation and specialization of function. This trend has drawn ancillary workers into the field, and the relations between the

older professional and the new assistants must be ironed out so that each is comfortable with his assignment and the system works smoothly and efficiently.

g) If work assignments are geared to educational prerequisites, a field may be characterized by immobility and individuals will be prevented from moving up a career ladder as they acquire competence through experience. Librarianship, like many professional fields, has no organized career ladder and this results in a deterrent to recruitment and contributes to malutilization.

h) The concern of a profession should be the education of its future leaders and research directed toward providing a higher level of service to the community at a reasonable cost. Graduate schools conventionally play a leading role in these critical assignments. One of the weaknesses of librarianship is the weakness of its graduate school structure.

i) In recent years many professions have seen their plans to meet their personnel requirements unsettled by the largesse of the Federal Government. Sudden large-scale appropriations for the expansion and improvement of libraries have had the inevitable result of creating manpower shortages. These can be relieved only with the passage of time as the training base is broadened and utilization patterns are altered. Librarianship is among the professions so affected.

j) Although most professions dealing with the consumer rely primarily on labor rather than on capital for producing and delivering their services, some of them have been able to rely heavily on capital in recent years because of advances in technology and this has reduced their need for trained manpower. Advances in electronics are presenting librarianship, particularly special libraries at the frontiers of research, with an opportunity to rely more on capital than on manpower, and this will inevitably result in many changes in conventional staffing patterns.

This then is a profile of librarianship as currently constituted and as it acts and reacts to the major forces, internal and external, which will determine the demand for and the supply of manpower.

4. Hard Facts

Most manpower studies would start with an analysis of the supply, demand, and utilization and then make the linkages with the forces in the labor market. The approach in this study however is not accidental; it reflects our conviction that the available hard facts are insufficient to provide a solid foundation for systematic manpower analysis. Nevertheless we must review at least briefly those nuggets of manpower information that may provide additional perspective and depth on existing problems and possible solutions.

a) Supply

The following table sets forth the number of professional librarians employed in three selected years between 1961 and 1966. The term "professional librarian", however, is not subject to unequivocal definition; for instance, in the following tabulation a school librarian is one who has had 15 or more credit hours of specialized instruction in library science within a baccalaureate or masters program.

Professional Librarians

Type of Library	1961	1965	1966
Total	62,700	76,700	80,900
School	23,300	31,500	32,700
Public	19,900		28,000
Other	3,400		4,700
College and University	9,700	12,000	14,100
Public	19,800	21,200	21,600
Special	9,900	12,000	12,500

In addition to the foregoing it has been estimated that there were between 15,000 and 20,000 librarians who had had some formal training but less than that required to justify recognizing them as professionals.

Several interesting findings can be extracted from the foregoing. First and foremost is the fact that within a single quinquennium there was an increase of 30 percent in the number of professional librarians. This indicates the responsiveness of educational and training institutions to rapidly expanding needs. Next, we can state that the greatest increase occurred in the supply of school librarians. In contrast was the very modest increase in public librarians. College and special librarians fell between the fastest and the slowest growing sectors.

From a study by Drennan and Darling (HEW-OE 15061) on Library Manpower we can glean the following additional facts about school and public librarians. Ninety-four percent of school librarians are women. The median age of the women librarians in the survey year (1962) was slightly over 50; only 1 in 10 was below 35. Over a third of all the women school librarians had never married. We learn that school librarians are well educated; 3 out of 4 had at least 1 year beyond their bachelor's degree. They had been employed as school librarians for an average of 14 years, largely within the same school or school system. Three out of 4 were assigned to high schools. And they earned on the average slightly over $6,300 annually.

With respect to public librarians, we see the following trends:

Public Librarians

	Total	Professional	Sub-Professional	Othe
1939	28,097	13,260	4,900	9,93
1950	35,436	13,995	5,952	15,48
1962	55,713	19,852	35,861	

These selected figures which were drawn from a paper by Henry T. Drennan and Sarah R. Reed of the U.S. Office of Education on Library Manpower (Table 4), highlight the following: a substantial rise in total employees; a much slower increase in professional librarians than in other staff. If we relate these staffing changes to gross population changes in the areas we see that there was no substantial change in the ratio of library staff to population. Equally significant is the increasing reliance of public libraries on personnel who were not professional librarians.

This special survey conducted in 1962 indicates a ratio of women to men among public librarians of almost 7 to 1. As with school librarians, a high proportion of the women--about 1 in 4--are older and will be eligible for retirement within the decade. The younger male librarians had more formal education than their female colleagues: about two-thirds held masters' degrees in contrast to only one-third of the women. One of the most interesting findings is that not even 1 percent of all public librarians specialized in any of the following fields: mathematics and statistics, the natural or the biological sciences, engineering, agriculture or the health services (Table 5). The median annual salary for women was about $5,800 and for men, $7,300; this partially reflected the greater amount of formal education of the men. Almost a

third of the men found it necessary to hold a second job.

One of the reports prepared for this Commission On the Economics of Library Operation, Mathematica, June 30, 1967 provides trend data on the staffing of college and university libraries:

College and University Libraries

	Total (Full Time Equivalent)	Professional	Other
1959-60	18,000	9,000	9,000
1962-63	23,300	11,200	12,100
1966 est.	29,000	13,000	16,000

The number of college and university libraries increased from 1951 to 2,207 and enrollment in these institutions increased from 3.4 million to 5.9 million during this seven year period. We find that the number of students and the total library staff expanded at approximately the same rate.

A closer consideration of the changes in the staffing patterns reveals that college and university libraries followed the same general pattern as that followed by public libraries which made relatively greater use of sub-professionals and other supporting staff. In addition during this period the number of hours of student assistance increased from almost 12 to 19 million.

A Working Paper by the American Council of Learned Societies' Committee on Research Libraries contains the following data about recent trends. During the decade 1956-57 to 1965-66 there was an increase in total staff of 94 percent. The increase in professional staff was considerably less--55 percent--and full-time non-professional staff increased by 115 percent. The increase in part-time staff amounted to 110 percent.

A special analysis of the staffing of the 202 largest institutions (universities and technological schools with faculty in excess of 1,500) in 1963 indicated the following educational achievement:

Full-time Library Staff

Total	2,269
Bachelor's Degrees	869
Masters' Degrees	1,254
Doctorates	106
Unknown	40

Once more the data indicate that in the recent substantial increases in library staffs, non-professional and supporting personnel have grown at a rate substantially higher than have professional librarians.

b) Shortages

One of the most elusive concepts in manpower economics is that of shortage. The layman has no difficulty in using the term to represent a gap between a desirable quantity and current supply. But the economist lives in a world of limited resources where money, trained people, goods and services are always short in the sense that there are less of them than would be desirable.

One perspective on the question of shortage is the trend in the numbers employed in relation to the demand for services. We have reviewed various data which point up the rapid increases in the total numbers of people working in libraries, including those who have been trained for this work. We must now consider the trends in demand. Here we find several discrete trends. The number of pupils enrolled in elementary and secondary schools and in colleges and universities has increased very rapidly since the end of World War II as a consequence of both high birth rates and an elongation of the educational cycle. Next, the number of persons living in areas served by public libraries has also increased rapidly reflecting the major pull of metropolitan areas.

These population trends have been reinforced by financial developments. The relatively rapid increases in per capita income have made it possible for taxpayers to pay higher taxes for local services, including public and school libraries. Even more important, the Federal Government has undertaken the substantial

financing of library services. The Library Services Act, which was passed in 1956 to provide modest sums for rural libraries, was broadened in 1964 and extended in 1966 until 1971 during which period federal authorizations have been set at $700 million. Additional sums of about $300 million have been made available under the Higher Education Facilities Act of 1963, the Higher Education Act of 1965, and the Elementary and Secondary School Act of 1965.

This large-scale infusion of federal monies has been primarily responsible for the manpower stringencies that have been felt by various library systems during the past several years. While the supply has been responsive, the demand has grown even more rapidly. But the extent of the stringencies should not be exaggerated. Drennan and Reed (op.cit.) have calculated the percentage of unfilled positions by type of library as follows: Public libraries--5.5 percent of the budgeted positions for professional staff and 2.6 percent of clerical positions were vacant in 1962; large public libraries had a vacancy rate of 6 percent for professional staff and slightly above 1 percent for all other staff in 1965. Academic libraries in 1965-66 showed comparable rates; 6 percent for professional staff in 4 year-institutions and 3 percent in two-year institutions. These data refer to full-time employees but approximately the same rates prevail with respect to part-time employees and they relate to the

positions that are not filled as of the beginning of the semester. If the library director has effective control over his budget, the odds are good that he will find some way of supplementing his staff after the term begins perhaps with student assistants. We have noted earlier that there has been a marked increase in student assistants in recent years.

These data indicate that with respect to effective demand, that is, with respect to the budgeted funds available for hiring personnel, the shortages are within tolerance limits. This conclusion, based on gross data, does not reflect of course the serious pressure on certain libraries because of their inability to fill strategic positions, such as competent cataloguers. A more exhaustive analysis of shortages would have to take into consideration the quality of the services--the ease or difficulty with which library users can obtain the volumes they need and the time they must wait for them.

c) Educational Output

While the director of a library may be able to ease his personnel shortage by hiring sub-professional and other types of supporting personnel, the manpower position of a profession is determined in the long-run by the capabilities

of its educational and training structure. The following data are taken from an article by Sarah R. Reed (pp. 261 ff) in the Bowker Annual for 1966. In 1964-65 the number of graduates with a bachelor's or higher degree in library service totaled 3,846 of which 78 percent were women. At the beginning of the fifties (1952-53) the comparable data were 1,645 with exactly the same percentage of women. During this period there was a marked expansion of higher education--both enrollments and graduates--and the field of library science slightly improved its relative position: in 1952-53 it accounted for .4 percent of all degrees; recipients in 1964-65 for .6 percent.

The 35 ALA accredited library schools accounted for 85 percent of all degrees granted in 1952-53 but in 1963-64 the then 33 ALA schools accounted for only 70 percent. During this period the number of non-accredited schools increased from 36 to 75 and doubled their share of the graduates.

With regard to placement there was a decline over the period in the share of public libraries from 33 to 29 percent with a corresponding increase in the share of college and university libraries (28 to 32 percent) and a smaller increase in special and other libraries (16 to 18 percent) with a smaller decline in school libraries (23 to 21).

In 1963-64 there were approximately 5 master's degrees awarded to every bachelor's degree in library sciences. However, there were only 14 doctorates in the field earned in

that year.

These data highlight the following facts: the library profession was largely successful in establishing the fact that the preferred professional degree in library science is the master's. However, the profession is having difficulty in developing a significant cadre with the doctorate. If it is desirable for both graduate and undergraduate schools of library science to have a considerable number of persons on their faculty with doctorates in library science, the low level of current output leaves a gap.

To a considerable extent it is possible for a student to specialize in one of the major fields of librarianship--school (301 programs), public (72), academic (53), and special (50). However for those who pursue only one year of graduate study their specialization is inevitably restricted because they must take a certain number of general courses.

An important and growing dimension of library education are institutes and other types of specialized short-term programs. In 1966 there were 37 institutes under NDEA with 950 capacity. During 1965-66 there were 258 conferences, work shops and short courses, focused primarily on library work with children and young people but with an interest in various aspects of the new technology and its likely impact on librarianship.

d) Productivity and Turnover

One of the conspicuous aspects of library services, as of most service industries, is the key role of the labor component in the total output. If wages and salaries of library manpower rise relative to wages in the economy at large--and that is the finding in the report submitted to this Commission by Mathematica--then the expansion of library services will prove relatively more costly over time especially since the economies that can be achieved by the substitution of machines for people in this field are limited. But considerable gains in productivity may still be achieved through improved organization, substitution of less costly for costly labor, by selected technological improvements, and by an improvement in the quality of the labor itself. The field of library service has in fact moved along each of these fronts and there is evidence that significant opportunities remain for further advances.

One of the challenges in assessing productivity changes in the service sector stems from the difficulty of developing a proper measure for improvements in the quality of service rendered. Clearly there have been many improvements in recent years as a result of new patterns of organization, stronger staffs, and because of the introduction of new technology.

One of the problems that confronts all industries which rely primarily on women for their personnel is the high rate

of turnover because so many women tend to leave their jobs in their twenties and thirties to raise their families. But since more and more married women are returning to work and at an earlier age than previously, the losses represented by these young women must be assessed against the important additional source of trained personnel represented by women who are ready to return to work.

The student of librarianship is handicapped in reaching valid judgments about present and future developments because of the conspicuously weak base of reliable facts about the structure and functioning of the profession and particularly about the flow of people into and out of the field. The foregoing nuggets tell us something but not nearly enough.

e) Salaries

Salaries for librarians have traditionally been low, but they have risen in recent years both absolutely and relatively. Although salaries differ by type of library and region of the country, beginning median salaries for most categories of professionals with masters degrees is above $6,000. For special librarians a recent survey found a median salary of $6,950 for those with less than one year of professional library experience. It is expected that salaries for all categories of librarians will continue to rise in response to market pressures.

But beginning salary rates, although rising, reflect only

part of the total picture. A successful profession must not only attract new members but must also retain its trained and experienced members. Here the salary picture is less favorable. In the Special Library Association study mentioned before, the median salary differential between those with less than one year's experience and those with 5 to 10 years experience was only $1,400; for librarians with 11 to 19 years experience the differential rose by only another $1,000. The majority of these special librarians work in small libraries. There are no senior positions into which they can advance. This problem also plagues school librarians and many professional workers in small public and academic libraries. The only route to career mobility is through a job change in a new library. The SLA survey found differentials of over $1,000 in the salaries of those who had moved over those who were tied to a local area.

Many library planners feel that the present amalgamation of libraries into ever larger systems will help to solve this problem by providing mobility routes within larger organizations. But this is more hope than reality. The Enoch Pratt Salary Survey of 1966 of the public library systems serving populations over 300,000 showed that moving up within the same organization does not bring a rise in salary equal to that from changing employers. Differentials in the median salary of junior librarians

at the lowest professional level and heads of departments for the entire system are in the order of $2,500 to $3,000. Only at the assistant director and director level are there substantial differentials.

5. Findings and Recommendations

The thrust of this analysis has been to place the manpower problems of librarianship within the larger context of the labor market so that the causes of certain difficulties can be better appreciated and the potentiality of alternative solutions more realistically appraised.

a) Despite widespread assumptions to the contrary, the shortages of library manpower are not particularly severe. In light of the rapid increase in the effective demand for library services as reflected in vastly enlarged library budgets, and the excellent opportunities for professionals in other sectors of the economy, library science has done well in expanding its total manpower supply to pace the expanding demand for its services.

b) A significant proportion of the existing supply is composed of persons above fifty years of age who will approach retirement within the decade. Hence planning for the future must make provision for the inflow of persons to cope both with the further expansion of demand and the replacement factor.

However, the recent large-scale increases in supply have undoubtedly reduced the average age of those in the field. Moreover, the steady decline in the birth rate since 1957 suggests that the demand for librarians for schools below the college level--disregarding improvements in the quality of services--will be smaller than in the past decade.

c) The high proportion of all librarians who are women and the disproportionate number of older librarians who are single women suggests that recruitment policy in the future must ease the entrance and reentrance of mature women, on a part or full-time basis, into library services. At present, 19 out of every 20 American women marry at some time and no profession heavily dependent on women can hope to secure the manpower it needs in the future if it fails to adjust its personnel policies to the strategic role of older married women.

d) Since men now account for only a small minority of the professional manpower in library services, it would be desirable to increase this proportion. Since librarianship represents a secondary rather than a primary choice for men, this suggests the need to gear recruitment to such decision-points in the occupational structure when large numbers of men may want or be forced to shift their choices. These decision-points occur at the end of a year of graduate study;

after military service; after changes in mid-career (in the early forties). Since there is a critical shortage of librarians with training in mathematics or the natural sciences, the recruitment of men should aim at sources of potential supply from among science majors.

e) The library profession has coped with considerable success with the expanding demands for service by following the classic pattern of adding large numbers of semi-professionals and other supporting personnel. However its efforts in this direction were more in response to the pressures of the market place than a considered or planned approach to the more effective utilization of trained manpower. As a consequence there remain wide gaps in most library systems between the education and training of librarians and the tasks on which they spend their time. There is considerable evidence that major efficiencies and economies could be gained from a systematic appraisal of present and prospective job assignments in different types of libraries with the end of more realistic staffing patterns in the sense that less than fully qualified professional librarians can discharge a high proportion of all duties.

f) Of critical importance in this connection are the manpower gains that can be made from a higher degree of centralization and coordination among libraries such as has been reflected in the adoption of the Library of Congress cataloguing system.

Effective manpower utilization is always dependent on improvements in organizational structure and the rationalization of systems. While progress has been made along these lines, particularly in large public library systems and among selected special libraries, many additional gains should be possible.

g) There has been much speculation about how the computer and related advances in electronics will revolutionize libraries, especially academic and special libraries. Some of the more far-fetched blueprints suggest that printed books will soon be anachronisms and that all knowledge worth recording will be on tapes, easily available to potential users through one or another electronic device. It is always dangerous to predict the future and although such a radical change may eventually occur there is no firm evidence to suggest that manpower plans for the next several decades should be geared to so radical a presumption. It is more probable that the printed book will survive than that it will disappear.

This cautionary note about the new technology should not obscure the real challenge facing librarianship today from those who are experimenting with new devices for the storage and retrieval of information under the aegis of "information sciences." Personnel skilled in the new technology are not going into the library field; in fact a small number of young able librarians are intrigued with the potentialities of the new technology and

are leaving conventional libraries for the forefront of research and development of new information systems. If classic librarianship is not to cede the cutting edge of professional advances to the electronics expert, more professional librarians will have to undergo training and experience in the new technology.

It is too early and there are too few studies available to reach firm judgment about the impact of the new technology upon the staffing of large library systems, which are likely to be the first to adopt it. The new technology will certainly lead to new demands at every level--from the professional to the machine operator. The less sure aspect, which should be kept under continuing study, is the staffing changes that do in fact take place as one or another library, or library system, becomes automated. The one safe assumption is that the present patterns of staffing will not continue.

h) A basic manpower problem of librarianship, as of many other professions without clearly defined boundaries, a central core of theoretical knowledge, and entrenched traditions, is the difficulty of defining appropriate levels of education and training for professional status. The leadership in librarianship has succeeded in persuading most people who enter the field to acquire a master's degree if they desire to be recognized as professionals. But most school librarians and many public librarians continue to enter with undergraduate education. The

difficulty in obtaining greater acceptance of graduate education reflects two facts: the blurring of differences between a good undergraduate and a fair graduate program and the differences in various regions of the country with respect to educational opportunities, salary levels, and a supply of potential candidates. The standards for California may not fit the needs of Mississippi.

Since it has been unable to establish unequivocal and clear-cut distinctions between undergraduate and graduate programs, the leadership has moved in the right direction by seeking first to strengthen the quality of graduate programs. About a third of all those who acquire a master's degree in library science have attended schools that have not been accredited. The leadership has had some interest in raising the level of undergraduate programs, but this might compound its difficulties in establishing graduate instruction as the norm. Recently, it has turned its attention to the weakness of programs offering the doctorate--weakness reflected in the small annual output and the limited number of schools which can offer a strong program.

To some extent, the shortages of faculty in library science can be relieved only by drawing into the field more subject-matter specialists--men and women who can make a significant contribution to the training of future librarians even though they themselves are not professional librarians. There is no other possible source. This is the pattern that

graduate schools of business, social work, and even law schools have followed and continue to follow.

i) One of the complex problems that library schools face is the structuring of their curriculum in light of the changes in the field. As libraries make more and more use of supporting personnel, it becomes important that senior librarians have some understanding of personnel management. Similarly, as libraries are grouped into larger systems, the leadership of tomorrow needs some understanding of the science and art of the management of large organizations. At least some introduction to information science and the potentiality of the computer appears to be essential fare for the future leader. If graduate schools are to educate leaders rather than technicians, they must stress many hitherto neglected aspects of management.

j) It does not follow that every library school must add specialists to its faculty. One of the strengths of a major university is its large number of specialized departments of instruction. Library schools should do more to tap into the departments which can help train their students.

k) No matter how much progress is made in strengthening schools of library science, much more attention must be devoted to in-service training. High turnover is a characteristic of all fields with a majority of female workers. The only way to cope effectively with high turnover is to provide

strong in-service training programs. This means that large libraries and large library systems need to devote more effort to systematic in-service training. In large metropolitan areas it might be possible for a group of libraries to cooperate in this effort by joint planning and programming.

l) The last decades have witnessed the "information explosion." The numbers of scholars and researchers have increased rapidly and this has been reflected in their output. There is no prospect whatever that academic, research, and specialized librarians will stay on top of this ever larger body of specialized knowledge except by attracting more and more subject=matter specialists into the field who should acquire such technical knowledge of librarianship as they may need. This would appear to be a sounder method than an attempt to have librarians master a new discipline.

m) Our final finding and recommendation is that the field of librarianship broaden and deepen its knowledge about itself. There are too few facts and the facts that are available are frequently of such questionable quality that a responsible leadership cannot formulate action programs and press for solutions. If the leaders are to lead and not be pushed by events they must devote more time and energy to encouraging systematic research into their profession. Only with sound knowledge of the past and the present, will it be possible to formulate plans for the future.

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ABSTRACT

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802 An assessment, in terms of manpower analysis, of the pres-
803 ent state (1960s) of librarian manpower and the outlook for the
804 future. The field of library service is appraised within the
805 larger framework of such comparable fields as teaching, social
806 work, and nursing which make use of large numbers of female
807 workers. Among the important findings are: the recent respon-
808 siveness of librarianship to expanded demands both through
809 rapid increases in professional and para-professional workers;
810 the confused state of preparation for the field; the weaknesses
811 of many masters and particularly doctoral programs; the undesir-
812 ability of establishing a single set of national standards for
813 qualifications; the need for more librarians to become acquainted
814 with the new technology for storage and retrieval; and above all,
815 the need of the field to know more about its own human resources--
816 how they are recruited, trained, and utilized.
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